TECHNICAL REVIEW DOCUMENT
For
RENEWAL / MODIFICATION of OPERATING PERMIT 01OPAD212

Colorado-Golden Energy Corp. – Metro Wastewater Cogeneration Facility
Adams County
Source ID 0010097

Prepared by Jacqueline Joyce
July 2007
Revised August and September 2007
Revised November 2007 to address the attainment status of the area
Revised December 2007 to remove the permanent cold cleaner solvent degreaser

I. Purpose:

This document will establish the basis for decisions made regarding the applicable requirements, emission factors, monitoring plan and compliance status of emission units covered by the renewed Operating Permit proposed for this site. The original Operating Permit was issued September 1, 2002. The expiration date for the permit is September 1, 2007. Since a timely and complete renewal application was submitted, under Colorado Regulation No. 3, Part C, Section IV.C all of the terms and conditions of the existing permit shall not expire until the renewal Operating Permit is issued and any previously extended permit shield continues in full force and operation. This document is designed for reference during the review of the proposed permit by the EPA, the public, and other interested parties. The conclusions made in this report are based on information provided in the renewal application submitted July 31, 2006 and additional information submitted on September 26, 2006, comments on the draft operating permit received on September 26, 2007, previous inspection reports and various e-mail correspondence, as well as telephone conversations with the applicant. A request for a minor modification to this Operating Permit was submitted on June 1, 2007. The minor modification and renewal are being processed concurrently. Please note that copies of the Technical Review Document for the original permit and any Technical Review Documents associated with subsequent modifications of the original Operating Permit may be found in the Division files as well as on the Division website at http://www.cdphe.state.co.us/ap/Titlev.html. This narrative is intended only as an adjunct for the reviewer and has no legal standing.

Any revisions made to the underlying construction permits associated with this facility made in conjunction with the processing of this Operating Permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This Operating Permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this Operating

Permit without applying for a revision to this permit or for an additional or revised construction permit.

II. Description of Source

This Operating Permit covers the cogeneration and combustion sources located at the Metro Wastewater Treatment Facility. Colorado-Golden Energy owns and operates two combustion turbine generator units and is responsible for operating four internal combustion engines that are owned by the Metro Wastewater Reclamation District (MWRD). Colorado-Golden Energy Corp is also responsible for the permitting and compliance of three boilers and four flares that are owned and operated by MWRD. Colorado-Golden Energy Corp is also responsible for reporting fugitive emissions occurring from digester gas piping downstream of each major header isolation valve off the digester tanks. However, fugitive emissions from these leaks are below APEN reporting levels.

The turbines and engines provide power for the facility and heat to the digester tanks. The turbines burn either natural gas or digester gas as fuel and the engines burn only digester gas as fuel. Digester gas is generated by MWRD in the anaerobic digester tanks. These tanks maintain an oxygen-poor environment and an appropriate residence time with a suitable bacterial population to allow digestion of dissolved and suspended solids. This treatment process generates digester gas, which contains primarily methane (CH_4) and carbon dioxide (CO_2), with small quantities (generally less than 2,500 ppm) of hydrogen sulfide (H_2S). The boilers provide heat to the digester tanks and burn only natural gas as fuel. The flares are used to incinerate excess digester gas that cannot be used as fuel.

There are two Operating Permits associated with the Metro Wastewater Facility. Colorado-Golden Energy Corporation is the permittee for the combustion sources (01OPAD212). MWRD is the permittee for the wastewater treatment sources (95OPAD072). This Operating Permit pertains to the combustion sources.

The facility is located at 6450 York Street in Denver, Adams County, just southwest of the confluence of the South Platte River and Sand Creek in an industrialized area. The facility is bordered on the west by the South Platte River and on the south by the Burlington Ditch. To the east approximately 1/4 mile is Interstate 270.

The summary of emissions that were presented in the Technical Review Document (TRD) for the original permit issuance has been modified to update changes in emissions at the facility. The summary of emissions that was presented in the Technical Review Document (TRD) for the original permit issuance has been modified to update permitted criteria emissions and to address hazardous air pollutant (HAP) emissions at the facility. Emissions (in tons/yr) for the total facility covered by both Operating Permits (Colorado-Golden Energy Corporation 01OPAD212 and Metro Permit 95OPAD072) are as follows:

Emission Unit	Potential to Emit (PTE)							
	PM	PM_{10}	SO_2	NO_X	CO	VOC	H_2S	HAPs
Colorado-Golden Energy Sources								
Combustion Sources (turbines, flares, engines and boilers)	17.26	17.26	169.6	86.85	99	12.6	5.3	See Table on Page 13
Metro Waste Water Reclamation District Sources								
Fugitive VOC Emissions from Wastewater Treatment Operations						11.1		See Table on Page 13
Emergency Generator				19.27	3.67			
Proposed New Emergency Generator[1]				1.74	0.95			
Insignificant Heaters and Emergency Generators[2]								
Total	17.26	17.26	169.6	107.86	103.62	23.7	5.3	13.69

[1]If not for NSPS requirements, unit would be APEN exempt if hours of operation do not exceed 100 hrs/yr and exempt from construction permit requirements if hours of operation do not exceed 250 hrs/yr; therefore PTE is based on 250 hrs/yr of operation. Source indicated unit would not operate for more than 100 hrs/yr.

[2]Included in the insignificant activity list in Appendix A of permit 95OPAD072.

Potential to emit for criteria pollutants is based on permitted emissions. The breakdown of HAP emissions by emission unit and/or fuel burned and individual HAPs is provided on page 13 of this document. As discussed in the table footnotes on page 13, HAP emissions for the fuel burning equipment are based on the permitted fuel consumption limits and the most conservative scenario for the equipment permitted to burn that fuel and published emission factors (AP-42 for most, FIRE for the flares burning digester gas). For fugitive emissions from wastewater treatment operations, HAP emissions are based on the maximum individual HAP emissions as calculated from the actual sampling data from the years 1992 – 2005 multiplied by 1.2 and total HAPS are based on permitted VOC emissions. Although this method for determining the PTE of individual HAPS differs from traditional methods, the Division considers that this method is justified as discussed later under “MACT requirements”.

Emission Unit	Actual Emissions							
	PM	PM_{10}	SO_2	NO_X	CO	VOC	H_2S	HAPs
Colorado-Golden Energy Sources								
Turbines	3.17	3.17	33.73	55.72	30.97	8.88	0.71	
Engines[1]								
Boilers				0.17	0.14			
Flares[1]								
Metro Waste Water Reclamation District Sources								
Fugitive VOC Emissions from Wastewater Treatment Operations						7.7		2.99
Emergency Generator				0.47	0.09			
Total	3.17	3.17	33.73	56.36	31.2	16.58	0.71	2.99

[1]according to APENS filed, these emission units did not operate in the reporting year.
[2]this is a proposed new unit and as such has not commenced operation.

Actual emission from the turbines, engines, boilers and flares are based on APENs submitted on March 21, 2006 for data year 2005. Actual emissions for the wastewater treatment operations and the emergency generator are based on the APENS submitted on March 2, 2006 (emergency generator, based on 11/04 through 12/05) and October 19, 2005 (wastewater treatment, based on 2003 data)

MACT Requirements

In the technical review document prepared to support the modification to the Operating Permit to replace seven (7) existing flares with four (4) new flares (revised Operating Permit issued January 4, 2005), the Division indicated that we considered the facility a major source for hazardous air pollutants (HAPS). The Division's determination was based on permitted VOC emissions for the wastewater treatment operations (permitted VOC emissions were 13.4 tons/yr; therefore the potential to emit of a single HAPS was over 10 tons/yr). Typically for determining PTE for a facility, either design rate at 8760 hrs/yr of operation and/or permitted emission limits are considered PTE.

However, EPA has on occasion provided alternative methods of determining PTE, both by policy and regulation, for sources whose PTE based on maximum capacity may result in unrealistically high emissions based on inherent design and operating limits. For instance EPA issued a memo dated November 14, 1995, which addressed calculating PTE from grain handling facilities, which typically are oversized and are constrained in operation, to the extent that they are designed to service a small geographic location and are limited by the amount of grain that can be grown and harvested in that area. In that instance, EPA indicated that the PTE should be based on the highest amount of grain received during the previous 5 years multiplied by a factor

of 1.2. In another instance, in the Oil and Natural Gas Production Facilities and Natural Gas Transmission and Storage Facilities MACTs, EPA included provisions to base the PTE on the maximum natural gas production rate over the five years prior to promulgation of the MACT multiplied by a factor of 1.2. In these MACT standards, sources are required to maintain records of the maximum natural gas throughput rate and if those maximum values are exceeded to re-calculate PTE to determine if the facility is still a minor source for HAPS.

In the case of the wastewater treatment operations, based on permitted VOC emissions (11.1 tpy), emissions of a single HAP could theoretically exceed the major source level of 10 tons per year. However, due to the nature of its operations, this is unlikely. Therefore, the Division based the HAP PTE on actual sampling data and the Operating Permit issued to MWRD for wastewater treatment operations (95OPAD072) requires MWRD to re-evaluate the HAP PTE if actual emissions of any single HAP exceed the maximum values used in the Division's HAP analysis.

Based on the Division's evaluation, this facility is a minor source of HAP emissions; therefore, MACT requirements do not apply to any equipment at this facility at this time. However, it should be noted that EPA has proposed MACT requirements for reciprocating internal combustion engines (RICE) at area sources. The proposed requirements apply to any size RICE (the current rules only apply to engines greater than 500 hp). Based on the proposed requirements published in the federal register on June 12, 2006, existing (construction or reconstruction commences after June 12, 2006) emergency generators and compression ignition engines do not have to meet the requirements of Subparts A and ZZZZ, including the initial notification requirements (40 CFR Part 63 Subpart ZZZZ § 63.6590(b)(3)).

Compliance Assurance Monitoring (CAM) Requirements

None of the significant emission units addressed in the Colorado-Golden Energy Corp. Title V Operating Permit are equipped with control devices; therefore, the CAM requirements do not apply to any of the emission units addressed in this permit.

Based on the information provided by the applicant and available to the Division none of the significant emission units at this facility have been modified since the original issuance of the Title V permit.

III. Discussion of Modifications Made

Source Requested Modifications

July 31, 2006 Renewal Application

Plot Plan

The source submitted an updated plot plan. This updated plan will be included in the renewal permit.

Insignificant Activities List (Appendix A)

The source submitted a revised insignificant activity list. The Division included any new insignificant activities identified on the list in the revised permit. Note that the list included some specific items (i.e. used oil tote), in addition to identified general categories (i.e. architectural painting).

Insignificant Sources, Section II, Condition 1.15

The source requested that in lieu of calculating insignificant activities annually, they conduct a one-time "worse case" calculation and maintain those calculations for Division review.

A revised construction permit (84AD057) was issued for this combustion equipment at the facility on January 5, 2000 to include the turbines. In order to avoid the major stationary source non-attainment review requirements, permitted SO_2 emissions were set at actual emissions plus 39 tons to keep emissions below the significance level. The construction permit included a requirement to track insignificant emissions related to the project and to keep those emissions below 1 tpy to ensure that the project emissions were below the significance level. However, in the Title V permit the requirement was not written as indicated in the construction permit, which only required tracking of emissions from insignificant activities related to the project, but requires that SO_2 emissions from all insignificant activities be tracked. Based on discussions with the source and the Division's review of the permit, it appears that the only insignificant activity related to the project (the new turbines) is propane use as ignition fuel for the turbines. The Division will revise the permit to indicate that only tracking of emissions from insignificant activities related to the project is required and to allow the use of a one-time worse case calculation.

Turbine Serial Numbers

In 2005, Colorado-Golden Energy notified the Division of planned maintenance on the two turbines. This maintenance involved the replacement of the engine core. The Division noted in letters to the source (sent on June 16, 2005, for turbine 5 and January 13, 2006, for turbine 6) that replacement of the core fell under the replacement of engine components identified in the Division's Alternative Operating Scenario for Turbines (Section I, Condition 2.2.1 of the existing permit) and was not considered a modification. However, revised APENS were submitted to indicate that the serial number had changed for the units. The new serial numbers for the turbines have been included in the renewal permit.

Boiler NESHAP – Initial Notification Requirements

The source requested that the initial notification requirement in the current permit be removed (Section II, Condition 1.22). The Division had included the initial notification requirement in the January 4, 2005 revised permit because as discussed previously, the Division had conservatively considered the facility to be a major source of HAPS, based on permitted VOC emissions from the wastewater treatment operations. In addition, the Division incorrectly considered the boilers at the facility to be part of the large gaseous fuel subcategory (in accordance with the provisions in § 63.7506(b)(1), existing large gaseous units were subject to the initial notification requirements only) since they were larger than 10 mmBtu/hr. However, the boilers are actually firetube boilers and under the definition of the small gaseous unit subcategory, any firetube boiler, regardless of size, is considered a small gaseous unit. Therefore, the Division incorrectly included the initial notification requirement in the permit. Colorado-Golden Energy submitted an initial notification on January 25, 2005. The Division has removed the initial notification requirement from the renewal permit.

Permit Shield

The source requested the permit shield for a number of inapplicable requirements, as discussed below.

Boiler NESHAP (40 CFR Part 63 Subpart DDDDD). The source indicated that the boilers at this facility are considered small gaseous fired units and therefore in accordance with the provisions in § 63.7506(c)(1) are not subject to the provisions in Subparts A and DDDDD. As discussed previously, the Division re-estimated the HAP PTE from this facility using a more realistic approach to estimate HAP emissions from the wastewater treatment operations and we no longer consider the facility a major source. At the time of the renewal permit application, the Boiler NESHAP provisions only applied to boilers located at major sources of HAP emissions, therefore, the Boiler NESHAP provisions did not apply to the boilers at this facility. However, since the Boiler MACT has been vacated, there are no requirements for which a shield can be granted. Therefore, no changes were made to the permit based on this request.

Turbine NESHAP (40 CFR Part 63 Subpart YYYY). The source indicated that the turbines at this facility are existing units (commenced construction prior to January 14, 2003) and that in accordance with the provisions in § 63.6090(b)(4), they are not subject to the requirements in Subparts A or YYYY. Since the turbine NESHAP provisions only apply to turbines located as major sources of HAP emissions, the turbine NESHAP provisions do not apply. The permit shield has been granted and included in the renewal permit since the facility is not a major source for HAP emissions.

RICE NESHAP (40 CFR Part 63 Subpart ZZZZ). The source indicated that engines P001 through P004 at this facility are existing (commenced construction prior to December 19, 2002) 4-stroke lean burn units and in accordance with the provisions of § 63.6590(b)(3) do not have to meet the requirements in Subparts A and ZZZZ. The permit shield has been granted based on the provisions in § 63.6590(b)(3).

CAM (40 CFR Part 64, as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV). The source noted that the language in Section I, Condition 5.1 indicates that CAM does not apply to any of the emission units addressed in this permit, since they do not utilize a control device to meet an emission limitation or standard and do not have pre-control emissions above the major source level. Therefore, the source requested that the permit shield be provided for the CAM requirements. The permit shield has been granted and included in the renewal permit

Old Flares vs New Flares

The source indicated that the four new flares commenced operation in January 2006 and that the seven old flares have been removed from the facility. Therefore, the source requested that the references to the seven old flares be removed and conditions related to construction and startup of the new flares be removed. The changes have been made as requested.

September 26, 2006 Additional Information Submittal

In their September 26, 2006 submittal, the source indicated that the company's name had changed. Therefore, the permit was revised to reflect the name change.

June 1, 2007 Modification Request

In their June 1, 2007 modification request, the source indicated that they would be adding a permanent cold cleaner solvent vat to their facility. In their request the source indicated that this modification met the requirements for a minor permit modification and requested that the minor permit modification procedures in Colorado Regulation No. 3, Part C, Section X be used. For minor modifications, the source can operate under the proposed permit conditions upon submittal of a complete application (Colorado Regulation No. 3, Part C, Section X.I).

Currently, the permit includes an alternative operating scenario to install and use a cold cleaner solvent vat on a temporary basis (120 days) during equipment overhauls. The source has requested that the alternative operating scenario for the use of a temporary cold cleaner solvent vat remain in the permit, in the event that an additional unit is needed or if the permanent unit is removed at a later date.

VOC emissions from the cold cleaner solvent vat are below APEN de minimis levels and the non-halogenated solvents will be used in the vat; therefore, no NSPS or NESHAP requirements apply. Although emissions from the solvent vat are below the APEN de minimis requirements and therefore exempt from both APEN reporting and construction permit requirements, under the "catch-all" provisions in Regulation No. 3, Part C, Section II.E (2nd paragraph) the solvent vat cannot be considered insignificant activities because they are subject to specific requirements in Regulation No. 7.

Colorado Regulation No. 3, Part C, Section X.A identifies those modifications that can be processed under the minor permit modification procedures. Specifically, minor permit modifications "are not otherwise required by the Division to be processed as a significant modification" (Colorado Regulation No. 3, Part C, Section X.A.6). The Division requires that "any change that causes a significant increase in emissions" be processed as a significant modification (Colorado Regulation No. 3, Part C, Section I.B.36.h.(i)). According to Appendix D of Regulation No. 3 (Section I.F, revisions adopted July 15, 1993, Subsection I.G for modifications) the Division considers that a significant increase in emissions is the potential to emit above the PSD significance levels (40 tons/yr of NO_X). Since emissions from the solvent vat are below the APEN de minimis level, the Division considers that this modification can be processed as a minor modification.

In addition, the Division requires that "any change that is considered a modification under Title I of the Federal Act" be processed as a significant permit modification (Colorado Regulation No. 3, Part C, Section I.B.36.h.(ii)). Part F of Regulation 3 describes more specifically what constitutes a modification under Title I of the Federal Act and Part F (Section I.F, revisions adopted July 15, 1993, Subsection I.G for modifications) indicates that a modification which triggers a NESHAP or NSPS is considered a Title I modification. Since the solvent vat will use non-halogenated solvents, the vat is not subject to an NSPS or NESHAP; therefore, the Division considers that this modification can be processed as a minor modification.

The solvent vat has been included in the renewal permit as a significant emission unit in Section II, Condition 3.

In their comments on the draft permit submitted on September 26, 2007, the source indicated that they would no longer be utilizing the permanent solvent degreaser; however, at that time, the unit will still located at the facility. Therefore, the source requested that the Division add some language to the permit requiring that a notice be submitted within 30 days of removal of the unit and that upon removal subsequent operation of any solvent degreasers would be conducted under the alternative operating scenario. The Division had included this language in the permit prior to sending the permit to public comment. The source has since indicated that the permanent cold cleaner solvent degreaser has been removed from the permit.

September 26, 2007 Comments

Appendices B and C

The source requested that additional rows be added to the tables in the Appendices in order to more appropriately report deviations. The change was made as requested.

Other Modifications

In addition to the modifications requested by the source, the Division has included changes to make the permit more consistent with recently issued permits, include comments made by EPA on other Operating Permits, as well as correct errors or omissions identified during inspections and/or discrepancies identified during review of this renewal.

The Division has made the following revisions, based on recent internal permit processing decisions and EPA comments, to the Metro Wastewater Cogeneration Facility Renewal Operating Permit with the source's requested modifications. These changes are as follows:

Section I - General Activities and Summary

- Revised Condition 1.1 to indicate that the definition of the 8-hour ozone control area is in Regulation No. 7.

- Revised Condition 1.1 to appropriately address the attainment status of this source, as the area in which this source will be located is expected to be designated nonattainment for ozone prior to issuance of this permit.

- In Condition 1.4, the phrase "last paragraph" was added after Section IV, condition 3.g to indicate which part is state-only enforceable. In addition, Section IV, condition 3.d was added as a state only condition in Condition 1.4. Note that Section IV, Condition 3.d (affirmative defense provisions for excess emissions during malfunctions) is state-only until approved by EPA in the SIP.

- The alternative operation scenario for temporary turbine replacement (Condition 2.2) was replaced with the latest version.

- Revised the citations in Condition 3.1 to reflect recent revisions to Colorado Regulation No. 3.

- In addition, revised the language in Condition 3.1 to appropriately reflect the status of the facility with respect to major stationary source PSD and nonattainment area new source review (NANSR).

- Removed the note in Condition 4.1 indicating that the wastewater treatment operations addressed in Operating Permit 95OPAD072 is subject to the 112(r) requirements. The language in their permit condition was written to indicate that it only addresses the emission units covered under the Colorado-Golden Energy Corp permit; therefore, it was not necessary to include this statement. In addition, it appears that in the near future, the wastewater treatment operations will no longer be subject to the 112(r) requirements.

- Added a column to the Table in Condition 6.1 for the startup date of the equipment.

Section II.1 – Cogeneration Facility

- Based on EPA's response to a petition on another Title V operating permit, minor language changes were made to various permit conditions (both in the table and the text) to clarify that only natural gas or digester gas is used as fuel.

- Removed the sentence "[o]ne (1) hour test shall be conducted at four (4) equally spaced loads", from Condition 1.4.1. This language is not consistent with the performance tests methods in NSPS GG. The permit will be revised to require that testing be conducted consistent with the methods in NSPS Subpart A § 60.8 and Subpart GG § 60.335.

- Updated the language in Condition 1.11 regarding performance tests.

Ozone Early Action Compact Requirements (Reg 7)

The Division entered into an early action compact to delay being re-designated as a non-attainment area for the 8-hour ozone standard. The early action compact requires controls to reduce VOC emissions in the 8-hour ozone control area. The early action compact VOC control requirements have been included in Colorado Regulation No. 7 and those requirements became effective, on a state-only basis, on May 31, 2004 and on a state and federal basis effective on September 19, 2005 (EPA approval published in the August 19, 2005 federal register). As discussed in the Technical Review Document prepared for the January 4, 2005 modified permit, these requirements were not applicable to any of the emission units addressed in this permit. Although further revisions were made to Colorado Regulation No. 7 on December 17, 2006, the status of the emission units covered under this permit is unchanged.

Section III – Permit Shield

- The citation in the permit shield was corrected. The reference to Part C, Section V.C.1.b and C.R.S. 25-7-111(2)(I) were removed, since they do not address the permit shield.

Section IV – General Conditions

- The upset requirements in the Common Provisions Regulation (general condition 3.d) were revised December 15, 2006 (effective March 7, 2007) and the revisions were included in the permit. Note that these provisions are state-only enforceable until approved by EPA into Colorado's state implementation plan (SIP).

- Removed the second paragraph under general condition 3.e (common provisions – circumvention clause) and put it under general condition 3.f (common provisions – compliance certifications).

- Removed the phrase regarding state-only enforceability in general condition 3.g (common provisions – affirmative defense for excess emissions during startup and shutdown). The affirmative defense provisions for excess emissions were approved by EPA into Colorado's SIP, except for the last paragraph. The state-only enforceable portion is noted in Section I, Condition 1.4.

- Replaced the reference to "upset" in Condition 5 (emergency provisions) and 21 (prompt deviation reporting) with "malfunction".

- General Condition No. 21 (prompt deviation reporting) was revised to include the definition of prompt in 40 CFR Part 71.

- Replaced the phrase "enhanced monitoring" with "compliance assurance monitoring" in General Condition No. 22.d.

Appendices

- Appendix B and C were replaced with revised Appendices.

- EPA's mailing address was revised (Appendix D).

Metro Waste Water Reclamation District / Colorado-Golden Energy Corp. Facility Wide HAP Emissions (tons/yr)

Pollutant	Source							
	NG Combustion[1]	DG Combustion[2]	WW Treatment[3]	MWRD Emerg. Gen[4]	MWRD Insig Heaters[5]	MWRD insig Emerg. Gen.[5]	MWRD Proposed New Emerg. Gen.[6]	Total
acetaldehyde		5.80E-02		1.09E-04		3.32E-03	2.76E-05	6.15E-02
acrolein		3.48E-02		3.40E-05			8.62E-06	3.49E-02
benzene*	1.01E-04	1.56E-00	7.00E-02	3.35E-03	3.55E-04	4.03E-03	8.49E-04	1.64E-00
cadmium	5.29E-05				1.86E-04			2.39E-04
chlorobenzene*			1.30E-01					1.30E-01
chloroethane (ethyl chloride)*			1.00E-01					1.00E-01
chloroform*			1.45E-00					1.45E-00
chromium	6.72E-05				1.87E-04			2.54E-04
dichlorobenzene	5.76E-05				2.37E-04			2.95E-04
ethylbenzene*			7.10E-01					7.10E-01
formaldehyde	3.60E-03	1.31E-01		3.41E-04	1.27E-02	5.10E-03	8.63E-05	1.53E-01
hexane	8.64E-02				3.05E-01			3.91E-01
methylene chloride*		6.11E-02	2.36E-00					2.42E-00
methanol								0.00E+01
naphthalene	2.93E-05							2.93E-05
nickel	1.01E-04				3.55E-04			4.56E-04
styrene*		3.41E-02	9.40E-01					9.74E-01
TCA (methyl chloroform)*		5.57E-02	2.16E-00					2.22E-00
TCE*			1.30E-00					1.30E-00
tetrachloroethylene (perchloroethylene)*			5.30E-00					5.30E-00
toluene*	1.63E-04	4.89E-02	7.19E-00	1.21E-03	5.75E-04	1.77E-01	3.07E-04	7.42E-00
vinyl chloride								0.00E+01
xylene				8.33E-04		1.23E-03	2.11E-04	2.06E-03
Total	9.06E-02	1.99	11.10	5.88E-03	3.20E-01	1.91E-01	1.49E-03	13.69
Highest Single HAP								7.42

[1]based on boilers burning natural gas at permitted annual limit, using AP-42 emission factors
[2]based on the flares burning digester gas at permitted rate, emission factors from FIRE (used boiler emission factors)
[3]Based on individual HAP at maximum actual emission rate for period of 1992 - 2005 x 1.2
[4]based on max hrly fuel and permitted hrs of operation.
[5]Emissions based on 8760 hrs/yr of operation.
[6]Emergency generator is subject to NSPS, therefore can't take APEN or CP exemption. If not for NSPS unit would be exempt from CP if it ran less than 250 hrs/yr; therefore, emissions based on 250 hrs/yr of operation.
*HAPS indicated as the significant HAPS for wastewater treatment. Individual HAPS based on max past actuals x 1.2. Total HAPS based on permitted VOC emission limit